United States Department of Agriculture

NRCS Natural Resources Conservation Service

Tennessee Job Sheet
Field Border Practice No. 386
CRP Practice CP33

Habitat Buffers for Upland Birds... Strips of Vegetation for Bobwhite Quail and Wildlife

Description

Habitat buffers are field borders planted around crop fields to provide food and cover for quail, upland birds, and other wildlife species. Grassland dependent bird species have suffered significant population declines due primarily to the loss of habitat. Habitat buffers will provide critical nesting, brood rearing, and security cover. Keeping farm equipment off these areas will be key to successful reproduction of these ground nesting birds. Buffers can be planted to native warm season grasses (nwsg) mixed with legumes or other beneficial wildlife plants. The clump forming upright growth of nwsg makes these grasses valuable as nesting and protective cover. These deep-rooted grasses include but are not limited to: switchgrass, big bluestem, indiangrass, little bluestem, and sideoats grama. Shrub plantings are optional, but can enhance valuable food and cover for wildlife. Shrub plantings can add a soft edge to wooded areas or form a hedgerow across open areas.

Benefits

- Creates corridor for wildlife movement.
- Provides wildlife food and cover.
- Reduces inputs on lower production land.
- Provides habitat for beneficial insects.
- Reduces erosion (particularly by eliminating turn rows).
- Improve water quality with buffers.

Establishment Techniques

A rate of 4.0 lbs. PLS/Acre (pure live seed) of nwsg is sufficient for conservation purposes (wildlife, erosion control). A mixture of several species of grasses with one or two legumes (partridge pea, Kobe lespedeza, etc.) are available for planting under program guidelines. NWSG planting can occur from March through June, with April and May being the preferred months to plant. June planting should occur on bottomlands or other sites that retain soil moisture. Shrub components should be planted from November to April.

Photo Courtesy of NRCS

Specifications

Allowed buffer width is 30 - 120 feet.

No more than 50% of the field can be enrolled under this practice or in combination with other buffers.

Shrub plantings (680/acre or 8'X8' spacing) are optional and shall NOT exceed 10% of contract acreage, with a minimum of 2 species required.

Natural succession of herbaceous plants can be used on areas with slopes of 0-2 percent. Temporary cover of Kobe or Korean lespedeza (20Lbs/Ac) is required when enrolled areas have crop residue on non-hydric soils.

Field borders previously established to native grasses are allowed to be enrolled as natural succession, regardless of slope.

Lime is NOT required for areas where soil pH is greater than 5.5. In the absence of soil test, apply lime at a rate of 1 ton per acre.

Existing improved (introduced) grasses such as fescue, bermuda, or orchardgrass, shall be eradicated using approved herbicides.

Buffers shall NOT be used as turn rows, roads, or for storage of crops, hay bales, or equipment.

No haying or grazing will be allowed in these areas.

Designated post markers will be installed every 500 feet along the cropland edges when the final buffer boundary and contract is approved.

November 2004

Key Points to Successful Establishment

- Plant Early
- Use High Quality Seed
- Apply Weed Control Techniques
- Obtain Good Seed to Soil Contact

The CRP program has select mixtures available for planting. The following table provides a general guide.

Seed Type	Rate/acre	Planting Dates
Kobe or Korean lespedeza with switchgrass	10 lbs. Lesp. & 4 lbs. PLS* Switchgrass (Blackwell var.)	3/1 – 7/1
Native grasses (short mix)**	4.0 lbs. PLS + 1 lb. legumes	3/1 – 7/1
Native grasses (tall mix)**	4.0 lbs. PLS + 1 lbs. legumes	3/1 – 7/1
Shrubs: (Plum Crabapple, etc.)	8' X 8' spacing 680 seedlings per Acre	11/1 – 4/1

*PLS = Pure Live Seed
** CRP offers 2 shortgrass mixes consisting of little bluestem and sideoats grama, and 2 tallgrass mixes consisting of big bluestem and Indiangrass. Shortgrass mixes typically produce plant heights from waist to head high. Tallgrass mixes typically produce plant heights in excess of head high.

Native Grass Establishment in Cropland

No-Till Drilling. Bluestems, Indiangrass, and sideoats grama are light, fluffy seeds which require a specialized drill. If green vegetation (winter or summer annuals) is present, tank mix and apply herbicides such as glyphosate at 24 - 64 oz/acre plus 4 - 8 oz/acre of imazapic herbicide with an appropriate amount of non-ionic surfactant or spray adjuvant, to these areas prior to no-till drilling. If fescue is present refer to the Natural Resources Conservation Service's *Tennessee Job Sheet - Fescue Eradication* for information (found at the local USDA service center). Rills or small gullied areas should be removed using disking, harrowing, or other techniques. After the rills are removed and the area sprayed for weed control, then plant nwsg seed at a depth of º inch using a specialized nwsg no-till drill.

Establishment of Switchgrass & Lespedeza

Broadcast Seeding. Switchgrass is a small, smooth-sided seed easily sown with broadcast spreaders. Use conventional seedbed preparation with disks or do-alls to prepare a clean seedbed. Cultipack or roll for a firm seedbed before and after seeding. Multiple diskings over 3-6 weeks prior to seeding can help reduce weed competition. Kobe or Korean lespedeza (10 lbs./acre) with switchgrass (4lbs. PLS/acre) can be spread using smaller cyclone broadcast spreaders. Care should be taken to not allow seed to quickly run out. When using large fertilizer spreaders, switchgrass and lespedeza can be mixed with fertilizer (phosphorous and potassium only), this mixture of fertilizer and seed should be distributed evenly over the entire area to be planted. If using large agricultural fertilizer spreaders, calibrate spreaders for 1/2 the rate and double sow to ensure even distribution of seed. After seeding, cultipack or roll entire seedbed area. Do NOT disk in or exceed 1/4 inch in depth during planting. During switchgrass establishment imazapic herbicides are NOT recommended for areas seeded in switchgrass and lespedeza, as injury or loss of stand may occur.

Maintenance

USDA requires CRP cover to be maintained and managed in a manner that will maximize wildlife benefits. Mid-Contract Management Practices such as light strip disking, prescribed burning, legume interseeding, and strip herbiciding have replaced mowing. Mowing is an inadequate means of disturbance for quail habitat, except as needed to facilitate disking or burning. These practices are cost-shared (maximum $50 per acre during the contract) and will help retain wildlife benefits for the life of the contract by encouraging a diverse forb/legume plant community. Conduct mid-contract management activities as outlined in an approved conservation plan after year 4 of the contract. Mid-contract practices will be scheduled to be performed in the fall (Sept. 1 – Oct. 15) or spring (Feb. 15 – Apr. 14). Fall strip-disking is especially effective in maintaining desirable habitat for quail and is easily performed with a couple of passes with a disk.